

[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0521; Directorate Identifier 2016-NM-189-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc., Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. This proposed AD was prompted by reports of fuel leaks in the engine and auxiliary power unit (APU) electrical fuel pump (EFP) cartridge/canister electrical connectors and conduits. This proposed AD would require repetitive inspections for fuel leakage at the engine and APU fuel pumps, and related investigative and corrective actions if necessary. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. **ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
 - Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West
 Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC
 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com; Internet http://www.bombardier.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425 227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0521; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations

office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Steven Dzierzynski, Aerospace Engineer, Avionics and Services Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7367; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2017-0521; Directorate Identifier 2016-NM-189-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2016-32R1, dated

October 12, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for certain Bombardier, Inc., Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 variants) airplanes. The MCAI states:

Fuel leaks have been reported in the engine and auxiliary power unit (APU) electrical fuel pump (EFP) cartridge/canister electrical connectors and conduits on production aeroplanes. Initially, Bombardier had determined that the subject discrepancy was limited to the new pump canister installations on 24 production aeroplanes. Bombardier also reported the possibility of cut insulation on the electric harness wires of the newly installed canister housing assemblies.

Emergency [Canadian] AD CF-2014-17 [which corresponds to FAA AD 2014-15-17, Amendment 39-17919 (79 FR 44268, July 31, 2014)] was issued to limit landing light operation on-ground in order to address a potential fire hazard as result of possible fuel leak from APU, EFP electrical conduit in the landing light compartment. In addition, [Canadian] AD CF-2014-21 [which corresponds to FAA AD 2014-20-01, Amendment 39-17974 (79 FR 59640, October 3, 2014), superseded by FAA AD 2016-10-10, Amendment 39-18521 (81 FR 31497, May 19, 2016)("AD 2016-10-10")] was issued to mandate removal of then identified 24 discrepant EFP canister assemblies from service.

Bombardier has recently determined that the subject fuel leaks may not be limited to the 24 units affected by [Canadian] AD CF-2014-21 [(AD 2016-10-10)], but may potentially affect other in-service [Bombardier Model] CL-600-2B16 aeroplanes. Until such time that a final fix for the fuel leak problem is realized, Bombardier as an interim mitigating action, has issued [Service Bulletins] SB 604-28-022 and SB 605-28-010 that introduces [a] repeat [general visual] inspection and if required, rectification [related investigative and corrective actions] of subject fuel leaks on affected aeroplanes. [Canadian] AD CF-2016-32 was issued on 29 September 2016 to mandate

compliance with applicable Bombardier SBs, to mitigate any potential safety hazard resulting from fuel leaks.

Revision 1 of this [Canadian] AD is being issued to correct a typographic error in paragraph B.1. of the [Canadian AD] Corrective Actions.

Related investigative actions involve, for certain airplanes, further inspections for fuel leakage. Corrective actions involve repair, and for certain other airplanes, those actions could include replacing O-rings, and replacing the fuel cartridge. You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0521.

Related Service Information under 1 CFR part 51

Bombardier, Inc., has issued the following service bulletins:

- Bombardier Service Bulletin 604-28-022, dated October 19, 2015; and
- Bombardier Service Bulletin 605-28-010, dated October 19, 2015.

The service information describes procedures for repetitive general visual inspections, and related investigative and corrective actions if necessary. These documents are distinct since they apply to airplanes in different configurations. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in

the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

We estimate that this proposed AD affects 121 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
General Visual Inspection	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$10,285

For Model CL-600-2B16 airplanes, having serial numbers 5701 through 5955 inclusive, 5957, 5960 through 5966 inclusive, 5968 through 5971 inclusive, and 5981, we estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replace O-Ring in Affected Pump	3 work-hours X \$85 per hour = \$255	\$17	\$272
Replace Cartridge in Affected Pump	2 work-hours <i>X</i> \$85 per hour = \$170	\$8,618	\$8,788

For Model CL-600-2B16 airplanes having serial numbers 5301 through 5665 inclusive, we have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct

effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
 - 3. Will not affect intrastate aviation in Alaska; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Bombardier, Inc.: Docket No. FAA-2017-0521; Directorate Identifier 2016-NM-189-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 variants) airplanes, certificated in any category, having serial numbers 5301 through 5665 inclusive, 5701 through 5955 inclusive, 5957, 5960 through 5966 inclusive, 5968 through 5971 inclusive, and 5981.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Reason

This proposed AD was prompted by reports of fuel leaks in the engine and auxiliary power unit (APU) electrical fuel pump (EFP) cartridge/canister electrical connectors and conduits. We are issuing this AD to detect and correct fuel leaks in certain fuel pumps to remove a potential fuel ignition hazard.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) General Visual Inspection and Corrective Action - Model CL-600-2B16 Airplanes, Serial Numbers 5301 through 5665 Inclusive

For Model CL-600-2B16 airplanes, having serial numbers 5301 through 5665 inclusive:

Within 600 flight hours or 12 months, whichever occurs first, after the effective date of this AD, do general visual inspections of the locations specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 604-28-022, dated October 19, 2015; except where the Bombardier Service Bulletin 604-28-022, dated October 19, 2015 specifies to contact the manufacturer, before further flight accomplish corrective action in accordance with the procedures specified in paragraph (i)(2) of this AD. Do all applicable corrective actions before further flight. Repeat the general visual inspections at intervals not exceeding 600 flight hours or 12 months, whichever occurs first.

- (1) Do a general visual inspection for traces of fuel coming from the right-hand side engine boost pump at the location of the belly fairing screw (FS412, BL 0.0).
- (2) Do a general visual inspection for traces of fuel coming from the left-hand side engine boost pump at the location of the belly fairing screw (FS412, BL 0.0).
- (3) Do a general visual inspection for traces of fuel coming from the EFP electrical wiring conduit outlet at the lower body fairing area for engine EFPs and at the right-hand landing light compartment for the APU EFP.
- (h) General Visual Inspection and Corrective Action Model CL-600-2B16 Airplanes, Having Serial Numbers 5701 through 5955 Inclusive, 5957, 5960 through 5966 Inclusive, 5968 through 5971 Inclusive, and 5981

For Model CL-600-2B16 airplanes, having serial numbers 5701 through 5955 inclusive, 5957, 5960 through 5966 inclusive, 5968 through 5971 inclusive, and 5981:

Within 600 flight hours or 12 months, whichever occurs first, after the effective date of this AD, do general visual inspections of the locations specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions in Bombardier Service Bulletin 605-28-010, dated October 19, 2015; except where Bombardier Service Bulletin 605-28-010, dated October 19, 2015 specifies to contact the manufacturer, before further flight accomplish corrective actions in accordance with the procedures specified in paragraph (i)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the general visual inspections at intervals not exceeding 600 flight hours or 12 months, whichever occurs first.

- (1) Do a general visual inspection for traces of fuel coming from the right-hand side engine boost pump at the location of the belly fairing screw (FS412, BL 0.0).
- (2) Do a general visual inspection for traces of fuel coming from the left-hand side engine boost pump at the location of the belly fairing screw (FS412, BL 0.0).
- (3) Do a general visual inspection of the right-hand side landing light compartment for traces of fuel coming from the APU EFP.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as

appropriate. If sending information directly to the manager of the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; fax: 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Related Information

- (1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2016-32R1, dated October 12, 2016, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0521.
- (2) For more information about this AD, contact Steven Dzierzynski, Aerospace Engineer, Avionics and Services Branch, ANE-172, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7367; fax 516-794-5531; email: Steven.Dzierzynski@faa.gov.

(3) For service information identified in this AD, contact Bombardier, Inc., 400

Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer

Response Center North America toll-free telephone 1-866-538-1247 or direct-dial

telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com;

Internet http://www.bombardier.com. You may view this service information at the FAA,

Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information

on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on May 19, 2017.

Victor Wicklund,

Acting Manager,

Transport Airplane Directorate,

Aircraft Certification Service.

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